Air-Weigh®

On-Board Truck and Trailer Scales

QUICKLOAD TRAILER SCALE

User Guide

PN:901-0143-001 R0

Touch Screen

	Weight screen
	Alarm menu and Auxiliary Output alarm
	Setup menu
	Previous screen
	Accept selection
	Scroll up or increase the selected digit
	Scroll down or decrease the selected digit
	No previous items
	No further items
	Next digit *(during data entry)*
	Single axle trailer
	Single axle trailer with lift axle
	Tandem axle trailer
	Tandem axle trailer with lift axle
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	Tridem axle trailer
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Overview

The QuickLoad Trailer Scale is an onboard scale that converts trailer air suspension loads to an accurate on-the-ground weight. Once calibrated, the scale will display accurate weight for any load.

Models for trailers with dual height control valves

This manual contains information for QuickLoad Trailer Scales for semi-trailers with either single or dual height control valves on the suspension. If your trailer has dual height control valves, please follow the additional instructions in the gray boxes.

The scale will display the actual on-ground weight of each axle group to within 300 pounds (140kgs). For air suspensions, an axle group is defined by the Height Control Valve (HCV) on the air suspension. For instance, a trailer tandem axle suspension typically has only one HCV, so the two axles are referred to as a single axle group. On a dual HCV tandem trailer, the air pressure from both HCVs will be averaged together in the scale to provide an accurate on-ground weight for the axle group.

The scale has alarm lights and an alarm output, which you can set to flash when the weight reading exceeds the amount that you program.

Power On/Off

The display may be turned off manually or automatically. To turn the display on, touch any location on the touch screen and release.

A. Manual Power Off: Turn off the scale at any time by touching the display area for five seconds, then releasing it.

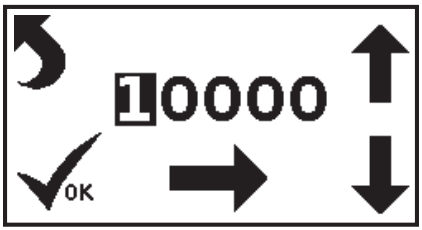
You can use this function when you do not want the display on while driving.

B. Automatic Power Off: Touch on the Additional Settings Menu. The display will show the number of minutes of inactivity that will cause it to turn off automatically, or 00 to indicate that it is Always On. As an example, enter 01 and press OK, and then the display will turn off after one minute of inactivity.

NOTE: If the display loses power at any time, it will return to its last setting upon power on. For example, if the display was off when it lost power, the display would still be off upon power on. To turn it on, briefly touch the screen.

Upon initial power up the unit will display the ***AirxWeigh*** logo and model number for three seconds. The unit will display either Model #6010 for a single height control valve, or Model #6110 for a unit supporting dual height control valves.

How to Use the Touch Screen



Touch a picture icon or menu button to navigate to the screen it represents.

Use the ⬆⬇ arrows to navigate through options or to increase/decrease digit values.

Use ➡ to select the next digit. If you get to the right-most digit, touching ➡ will wrap to the left-most digit. Press OK to confirm.

Return to the previous menu by pressing .

Setup Wizard

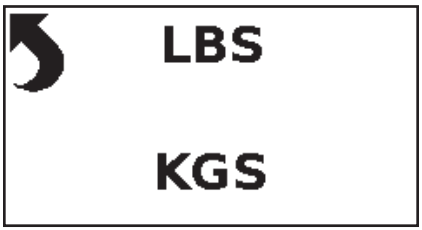
The first time the scale is powered-up or when the Setup Wizard is selected, the following steps will be required:

1. Choose a Language

Touch the language you want to use.

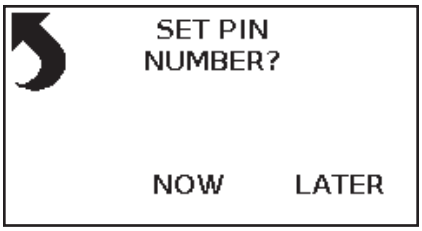
2. Select a Weight Type

Choose between LBS or KGS by touching your desired choice.



3. Set a Personal Identification Number (PIN)

Optional – The PIN is used to lock the scale so that unauthorized individuals cannot tamper with it. It may also be set after completing the Setup Wizard.



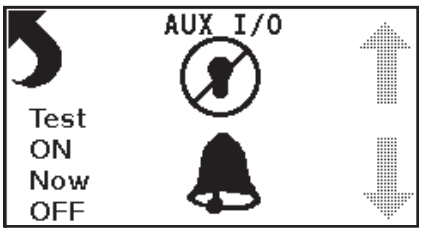
When prompted for a PIN during use, and an invalid PIN is entered, an "INVALID PIN! TRY AGAIN!" notice will be displayed. Access to settings will be denied until the correct PIN is entered. If you lose or forget your PIN, contact Air-Weigh Support at (888) 459-3247 for assistance.

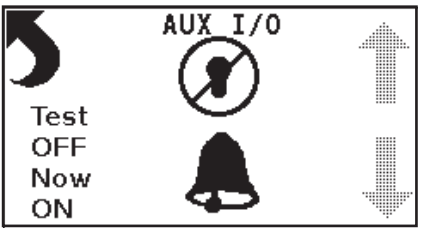
4. Auxiliary Input and Output

The Auxiliary Output can be used in conjunction with the built-in Alarm LEDs, when an audible or remote alarm light is needed. The Auxiliary Output provides a switched 12V / 24V at 0.5 amps for connection to a user-supplied output device.

If used, please order the Aux. I/O interface cable (PN 012-0300-011, 3' cable) in order to connect the Auxiliary Output with an external alarm device.

You can select ⊘ or have it reflect programmable overweight alarm and warning conditions by pressing the 🔔 icon.



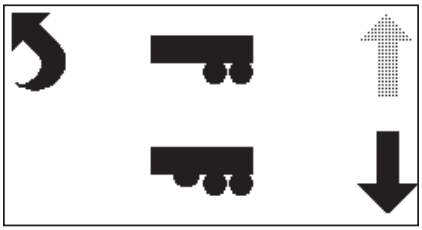


Setup Wizard *(continued)*

5. Trailer/Axle Type

For trailers with dual height control valves, see the Appendix for a complete list of the supported suspension types.

Use the ⬆⬇ arrows to choose among the following trailer suspension types: single, tandem or spread-axle tandem, and tridem, with or without lift axle *(see chart below for reference)*.



Trailer/Axle Icons

	Single axle trailer
	Single axle trailer with lift axle
	Tandem axle trailer
	Tandem axle trailer with lift axle
	Tandem spread axle trailer
	Tridem axle trailer
	Tridem axle trailer with lift axle

Calibration

Calibration Overview

Your scale must be calibrated before it will show correct on-ground weights for your vehicle.

There are two methods of calibrating the QuickLoad Trailer Scale. Use only one of these methods to calibrate the scale.

A. Select a pre-programmed Factory Calibration from the scale menu if the trailer suspension type is included in the list.

– OR –

B. Perform a Manual Calibration and enter the Empty weight into the scale when the vehicle is empty, and enter the Heavy weight into the scale when it is heavily loaded.

IMPORTANT:

If your trailer's suspension is among the available Factory Calibration choices, then proceed with Factory Calibration.

If your trailer's suspension is not among the available Factory Calibration choices, or it has dual height control valves, then you must use Manual Calibration to calibrate your scale.

If you need assistance, please contact Air-Weigh Support at (888) 459-3247 – available 7 a.m. - 5 p.m. PST, Monday - Friday *(except holidays)*.

Note: In rare cases, the trailer weight may be incorrect by the same amount when both empty and loaded. You do not have to recalibrate your scale. You can correct this with the Weight Adjust function.

Calibration

Calibration Overview *(continued)*

The accuracy of the QuickLoad Trailer Scale depends upon the accuracy of the certified scale you used for manual calibration. Ensure that the in-ground scale is reliable, recently certified and in good repair. It is preferable to obtain all weight tickets from the same certified scale as this ensures comparative accuracy.

For the best manual calibration results, the truck and trailer should be parked on level ground, with the trailer brakes released and the engine running, both when getting the certified weight and when entering it into the scale.

For even better accuracy, deflate the suspension for 5 to 10 seconds and then re-inflate to factory-specified ride height before entering your calibration weight.

Once the QuickLoad Trailer Scale is calibrated, it should not be necessary to re-calibrate unless the suspension has been damaged or repaired.

Semi-trailers with dual height control valves require Manual Calibration

Factory Calibration is not available for suspensions with dual height control valves. Only suspensions with a single height control valve can use pre-programmed

Calibration

Factory Calibration

Many popular trailer suspensions are available in the Factory Calibration menu. Using this method, you do not enter Empty and Heavy axle weights. The correct factory calibration will result in the scale displaying weight to within 300 lbs (140 kgs) of the actual on-the-ground weight.

The table below lists the pre-programmed suspensions currently available. Note that only suspensions with a single height control valve are included. Suspensions with dual height control valves do not have pre-programmed suspensions.

Most suspension manufacturers have identification tags on their suspensions. Contact your trailer manufacturer for suspension information if needed.

Factory Calibration Suspensions

MANUFACTURER *(as shown on scale)*	**SUSPENSION TYPE** (single height control valve only)		
Binkley	Airlite 2 2X		
Dana	RF20 2X RF23 2X	RS20 2X RS23 2X	RS40 2X RF46 2X
Hendrickson	HT 250 2X HT 250 3X AAL23 2X AA230 2X AAL23 3X AA230 3X	AAL25 2X AA250 2X HKANT 40A[1] 2X HKA180 2X HKAT50 2X HKA250 2X	HT 230 2X HT 300 2X HKANT40B[1] 2X
Meritor	RHP 2X		
Neway	RL224 2X	RL230 2X	RL250 2X
Ridewell	240 US 2X	240 US 3X	240 OS 2X[2]
Watson-Chalin	TA 300 2X	TI251 2X	

[1] HKANT40A is for Vantraax HKANT 40K 2X prior to Jan. 2008. HKANT40B is for Vantraax HKANT 40K 2X after Jan. 2008 and later.

[2] Use the 240 OS 2X pre-programmed calibration for the RAR 260 30K, which replaced it as of Sept. 2009.

KEY

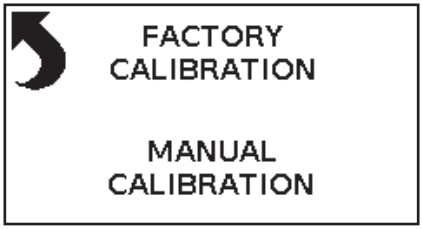
2X Tandem Axles

3X Tridem Axles

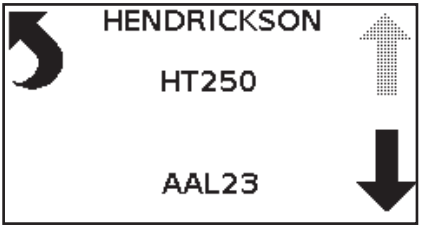
Calibration

Factory Calibration *(continued)*

1. Select Factory Calibration from the Calibration menu.



2. Select from the Manufacturer list, then select Suspension Type.



3. When the calibration is complete, the scale will display the current weight.

If the trailer's weight is always off by the same amount when both empty and loaded, you can use the Weight Adjust function to correct this condition.

Calibration

Manual Calibration

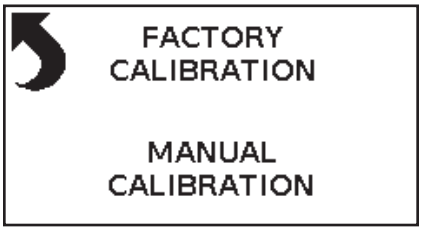
If Factory Calibration is not available for your trailer suspension, then you must manually enter Empty and Heavy axle weights.

When calibrating using this method, the empty weight must be entered while the vehicle is empty, and the heavy weight must be entered while the vehicle is heavily loaded.

Air-Weigh recommends that you obtain both empty and full weights from the same reliable, certified scale.

It does not matter whether you calibrate empty or heavy first. However, you *must* calibrate both empty and heavy before the weight display will be accurate. You can recalibrate the empty or heavy weights individually at any time. You can also use the Weight Adjust function if the trailer's weight is always off by the same amount when both empty and loaded.

1. Select Manual Calibration from the Calibration menu.



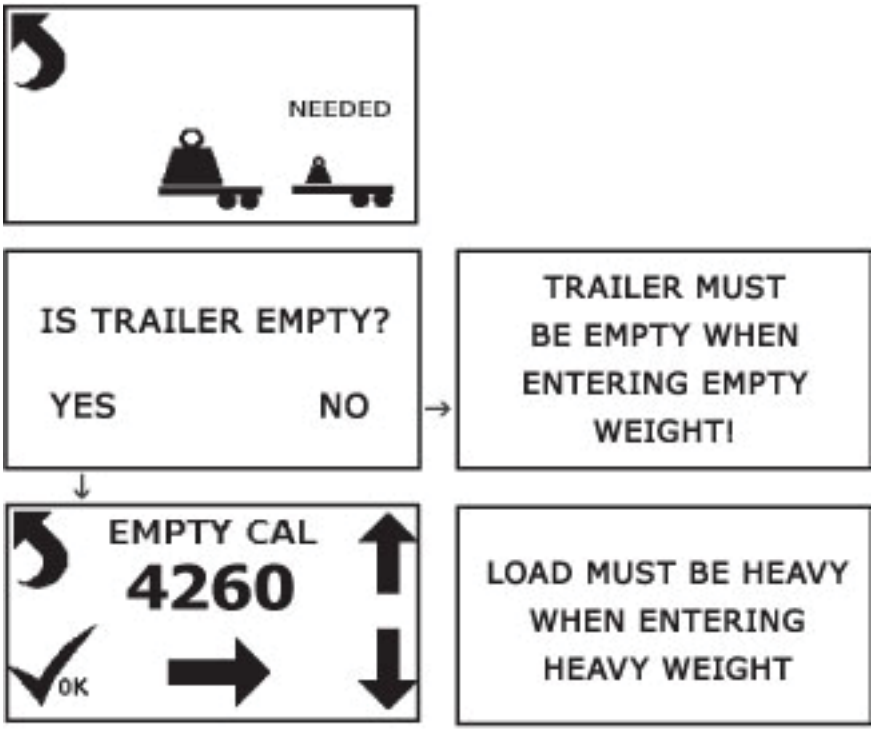
Calibration

Manual Calibration *(continued)*

2. Empty Weight Calibration

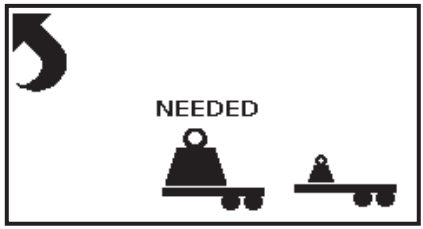
With your trailer empty, weigh the trailer axles on a certified in-ground scale. Weigh only the trailer axles on the certified scale, with the trailer lift axle up. Do not weigh the drive axles on the certified scale. Write down this weight, and proceed off the scale to a level site. Set the tractor parking brake but not the trailer brakes. With the engine running, deflate the trailer suspension for 5 to 10 seconds and then re-inflate. Next, enter your Empty calibration weight into the Air-Weigh scale.

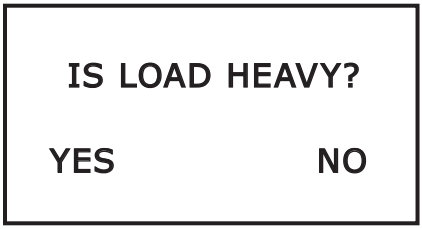
Make sure that you enter the empty weight when the trailer is empty!



Calibration

If you have already calibrated your Heavy weight, the scale will show the trailer weight after you enter the Empty weight. If not, it will notify you that a Heavy calibration is needed. Push the **NEEDS CAL** button to calibrate.





3. Heavy Weight Calibration

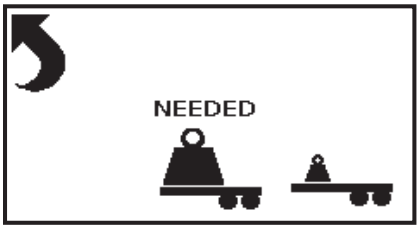
With your trailer heavy, weigh the trailer axles on a certified in-ground scale. Weigh only the trailer axles on the certified scale, with the trailer lift axle up. Do not weigh the drive axles on the certified scale. Write down this weight and proceed off this scale to a level site. Set the tractor parking brake but not the trailer brakes.

With the engine running, deflate the trailer suspension for 5 to 10 seconds and then re-inflate. Next, enter your Heavy calibration weight into the Air-Weigh scale.

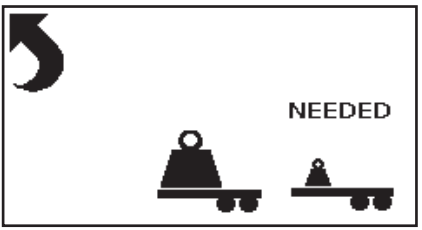
Make sure that you enter the heavy weight when the trailer is fully loaded!

Calibration

Manual Calibration *(continued)*



If you have already calibrated your Empty weight, the scale will show the trailer weight after you enter the Heavy weight. If not, the scale will notify you that an Empty calibration is needed.



When calibration is complete, the scale will display the current weight.

Using the Display

Show Current Weight

Touch ▲ on the Main Menu.

The display will show the current weight. Touch **MENU** to go to the Main Menu.

For best weighing, park on level ground with the engine running and trailer brakes released. Deflate the trailer suspension for 5 to 10 seconds and then re-inflate.

Using the Display

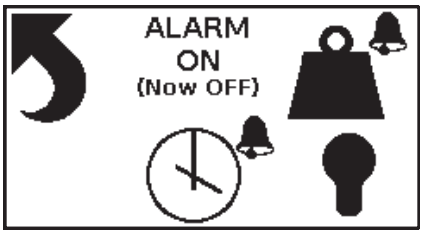
Alarms

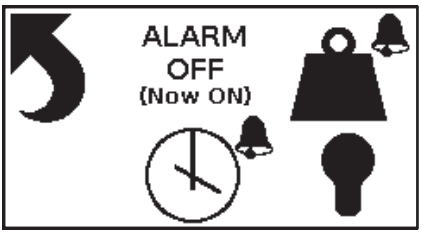
The QuickLoad Trailer scale provides two individually programmable alarm settings. Built-in LEDs will blink slowly when the warning weight alarm setting is exceeded. They will blink quickly when the overweight alarm setting is exceeded.

For example, the Warning Weight could be set at 31,000 lbs and the alarm weight could be set at 33,000 lbs. When the measured weight exceeds 31,000 lbs., the LEDs will blink slowly; and if the weight exceeds 33,000 lbs. the LEDs will blink rapidly.

NOTE: If the LEDs flash when loading the trailer, touch the screen while the Weight Display is showing to turn them off. They will be reactivated when the weight falls below the programmed Warning or Alarm Weight.

Touch 🔔 on the Main Menu to go to the Alarm menu.





Turn the Alarm On/Off

Touch **ALARM ON** (or OFF) to turn the alarm function on (or off).

Set the Alarm Time-Out

Touch 🕒 to set the Alarm Time-Out (in minutes).

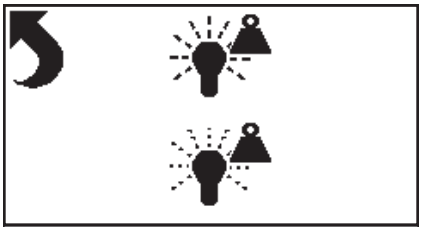
Use the ⬆⬇ arrows to set the amount of time the alarm will be on before it automatically shuts off.

Using the Display

Alarms *(continued)*

Set the Warning and Alarm Weights

Touch to go to the Warning and Alarm Weight menu.



Touch (upper icon) to set the Alarm Warning Weight.
Touch (lower icon) to set the Alarm Weight.

The Warning Weight must be less than the Alarm Weight, unless the Alarm Weight is zero.

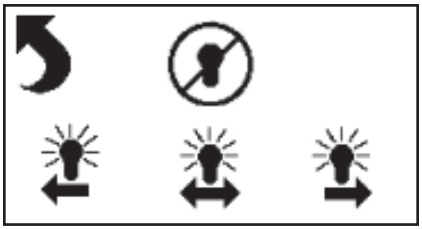
Using the Display

Alarms *(continued)*

Set Alarm LEDs

Once the Warning and Alarm weights have been entered, press to select which LEDs are lit when weight has been exceeded.

Touch an icon to select which LEDs are lit, or touch for no lit LEDs.



When the programmed weights have been exceeded, the selected lights will blink **slowly** for the Warning Alarm and **quickly** for the Overweight Alarm.

Auxiliary Alarm Output

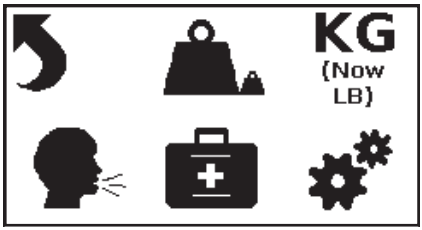
If you did not set up the Auxiliary Alarm during the Setup Wizard, you can set it up as follows:

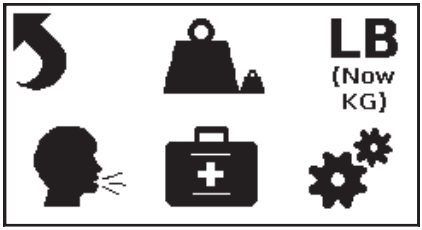
From the Main Menu, press to go to the Setup menu. Press to go to the Additional Settings menu. Press and AUX I/O to set up the Auxiliary Input/Output.

Using the Display

Scale Settings

Press on the Main Menu to go to the Setup menu:





The following choices are available:

Calibrate Scale

LB Change Weight from KGS to LBS

KG Change Weight from LBS to KGS

Change Language

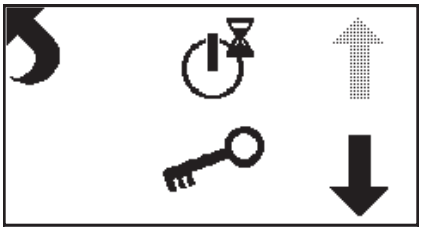
Scale Diagnostics

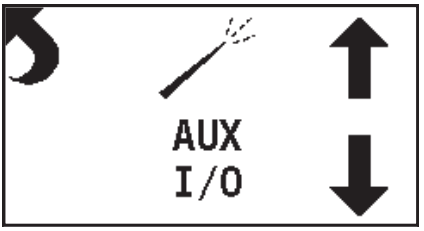
Additional Settings Menu (see following page for menu items)

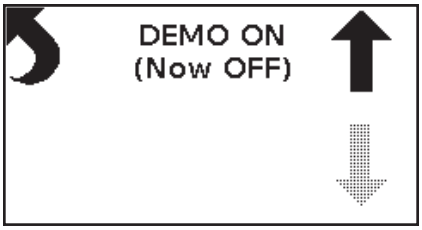
Using the Display

Scale Settings *(continued)*

Additional Settings Menu







Set Display Time-Out

Change PIN

Setup Wizard ***(Caution: Will clear all previous settings!)***

AUX
I/O Set Up Auxiliary Input/Output, including alarm output

DEMO ON
(Now OFF) Activate/Deactivate Demo Mode

Using the Display

Demo Mode

Demo Mode is used by Dealers and Resellers to show sample weights for countertop displays and tradeshows.

> **IMPORTANT:**
>
> The QuickLoad Trailer Scale will NOT show actual trailer weight in Demo Mode.

If the scale is in Demo Mode, you will see the *AirWeigh* logo instead of **MENU** below the weight. The weight shown will not change and will not reflect the actual trailer weight.

To turn off Demo Mode and return the scale to regular functioning:

1. Press the *AirWeigh* logo to go to the Main Menu.
2. Press to go to the Setup menu.
3. Press to go to the Additional Settings menu.
4. Press twice to go to the Demo Mode screen.
5. Press DEMO OFF (Now ON) to turn off Demo Mode and return the scale to regular functioning.

Example Screen in Demo Mode

Appendix: Dual HCV Model

Dual height control valve suspensions (HCVs) will be designated with a **L+R** above the suspension icon. Use the ⬆⬇ arrows to choose among the following dual height control valve suspension types (see chart below for reference).

Note: There is no Factory Calibration option available for dual height control valve suspensions; if selected, an error message will display.

Once you have selected a suspension, follow the calibration procedure described earlier in this manual.

Trailer/Axle Icons

Tandem axle trailer with single HCV	Tandem axle trailer with dual HCVs
Tridem axle trailer with lift axle, single HCV	Tridem axle trailer with lift axle, dual HCVs
Tandem axle trailer with lift axle, single HCV	Tandem axle trailer with lift axle, dual HCVs
Single axle trailer with single HCV	Single axle trailer with dual HCVs
Tandem spread axle trailer with single HCV	Tandem spread axle trailer with dual HCVs
Single axle trailer with lift axle, single HCV	Single axle trailer with lift axle, dual HCVs
Tridem axle trailer with single HCV	Tridem axle trailer with dual HCVs

For Use with Single Height Control Valve

A scale that supports dual height control valves can be used on trailers with a single height control valve. For installation, see the QuickLoad Trailer Scale Installation Guide (P/N 901-0142-000), then follow these steps:

1. If the scale starts up displaying **ENGLISH/ESPAÑOL**, follow the Setup Wizard instructions starting on page 3 of this manual. When you reach the Trailer/Axle Type icons, skip to Step 3, below.
2. If the scale starts up with another display, reset it to factory settings:
   A. From the Weight Display, touch **MENU**, leading to the Main Menu; from the **NEEDS CAL** Display, skip to Step B.
   B. Touch the icon leading to the Setup Menu.
   C. Touch the icon leading to the Additional Settings Menu.
   D. Touch the ⬇ arrow once, then touch the icon on the following screen.
   E. Touch **YES** when prompted, resetting the scale; then follow the Setup Wizard instructions starting on page 3 of this manual.
3. When you reach the Trailer/Axle Type icons, select an icon without the **L+R** designation. Scroll until you find the correct suspension type and touch it.
4. Factory calibrations are available for some suspensions with single height control valves. See page 8 of this manual.
5. Ignore the remaining Dual Air Port instructions.

Limited Warranty

For product failures due to material or manufacturing defects, Air-Weigh will replace or repair all components for up to 3 years from shipment date to the end-user Air-Weigh customer. Air-Weigh assumes no responsibility for administering warranty claims directly with any third party end users. The responsibility of Air-Weigh under this warranty is limited to the repair, replacement, or credit of the defective part or assembly.

This warranty does not cover incidental or consequential damage to persons or property caused by use, abuse, misuse, or failure to comply with installation or operating instructions. This limited warranty does not apply to any product that has failed due to accident, abuse, alteration, installation not consistent with printed installation instructions, improper maintenance, improper operation, or as a result of system integration or installation not explicitly approved in writing by Air-Weigh.

Air-Weigh and its resellers shall have no responsibility or liability for damages if the purchaser or any other person alters the vehicle incorporating Air-Weigh products. This limited warranty shall not apply to any product that has been repaired or altered by anyone not employed by Air-Weigh or not operated in accordance with the manufacturer's printed material delivered with this product.

Air-Weigh hereby expressly disclaims any and all implied warranties of any type, kind of nature whatsoever, particularly any implied warranty of merchantability or fitness for a particular purpose not expressly stated by Air-Weigh in its printed material delivered with its products.

Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in the terms and conditions of this Warranty may not apply. This warranty gives you specific legal rights and you may also have other rights, which vary state to state.

**May be covered by U.S. Patent Nos. 5478974, 5780782, 7478001;
Foreign Patent Nos. 260494, 677998, 2122766**

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Procedure For Warranty Claims

ALL customers should first contact Air-Weigh Customer Support Department at (888) 459-3247 for questions regarding the use, operation, repair or return of any Air-Weigh product.

In the event Air-Weigh requests to examine the product prior to disposition OR for repair or replacement, Air-Weigh requires a Return Material Authorization (RMA) number be issued before the item is returned. Customer Support will issue the RMA number. Please reference this RMA number in all correspondence.

Claimed items shall be shipped freight pre-paid to:

Air-Weigh
Customer Support Department
1720 Willow Creek Circle, Suite 510
Eugene, Oregon 97402, USA

The Air-Weigh RMA number **must** appear on the outside of the return packaging.

Air-Weigh shall examine returned material within 30 days after receipt, or sooner if mutually agreed upon. If Air-Weigh determines that the part or assembly was defective in material or workmanship and within the warranty period, Air-Weigh will repair or replace the part or assembly and return freight pre-paid. In the event Air-Weigh determines that the part or assembly cannot be repaired or replaced and is within the warranty period, a credit not to exceed the purchase price will be issued to the Air-Weigh customer.

For our customers using purchase orders Air-Weigh will process a credit memo and notify the customer by email or fax. The customer will process a corresponding debit memo and notify Air-Weigh accordingly.

If the part or assembly received by Air-Weigh does not meet the requirements of the warranty program set forth above, at the Air-Weigh customer's request the part or assembly will either be discarded, returned freight collect, or repaired or replaced at the Air-Weigh customer's expense and returned freight collect.

Air-Weigh®

1730 Willow Creek Circle • Eugene, OR 97402-9152 USA
P.O. Box 24308 • Eugene, OR 97402-0437 USA

Telephone (541) 343-7884 • Order Desk (888) 459-3444
Customer Support (888) 459-3247 • Fax (541) 431-3121

Hours of Operation: Monday - Friday, 7 a.m. - 5 p.m., PST
www.Air-Weigh.com